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EXAMINER

TRAN, KHUONG N

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/785,233 | Applicant(s) NASSAR, AYMAN ESAM | |
| | Examiner KHUONG TRAN | Art Unit 2619 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 and 11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Narayanan (U.S Patent No. 7,346,771 B2).

Regarding claim 1, a telecommunications system (**10, FIG. 1**) for provisioning an inter-provider internet protocol (IP) service (**i.e., SLA**), comprising:

- a first network (**16, FIG. 1**) managed by a first service provider (**i.e., ISP1, FIG. 1**), said first network (**16, FIG. 1**) having a plurality of resources (**26, 28, 38, 40, FIG. 1**);
- a second network (**18, FIG. 1**) managed by a second service provider (**i.e., ISP2, FIG.1**), said second network (**18, FIG. 1**) having a plurality of resources

- (30, 32, 42, 43, FIG.1), said second network (18, FIG. 1) being operable to receive a request for the inter-provider IP service (i.e., SLA, column 5, lines 27-34);
- means for determining real-time availability (i.e., routing table 118, FIG. 3) of first ones of the plurality of resources (column 5, lines 1-3) of said first network (16, FIG. 1) needed for the inter-provider IP service (i.e. peering and exchanging key) and real-time availability (i.e., routing table 116, FIG. 3) of second ones of the plurality of resources (column 4, lines 64-67) of said second network (18, FIG. 1) needed for the inter-provider IP service (column 5, lines 35-38, 50-59); and
 - means for automatically provisioning the inter-provider IP service (column 6, lines 8-11; the provision occurs automatically as part of protocol exchange message process) between the first network (16, FIG. 1) and the second network (18, FIG. 1) using the first resources (i.e., BGP-32, FIG. 1) and the second resources (i.e., BGP-41, FIG. 1).

Regarding claim 11, Narayanan teaches a method for provisioning an inter-provider internet protocol (IP) service (i.e. SLA) across at least two service providers (i.e. ISP1-3, FIG. 1), comprising:

- receiving a request for the inter-provider IP service (i.e., SLA, column 5, lines 27-34);
- determining real-time availability of resources (i.e., routing tables 116, 118, FIG. 3, column 4, lines 64-67, column 5, lines 1-3) within respective

- networks (**i.e. 16, 18, FIG. 1**) managed by the at least two service providers (**i.e. ISP1, ISP2**) needed for the inter-provider IP service (**column 5, lines 35-38, 50-59**); and
- automatically provisioning the inter-provider IP service (**column 6, lines 8-11**; the provision occurs automatically as part of protocol exchange message process) between the respective networks (**i.e. 16, 18, FIG. 1**) of the at least two service providers (**ISP1, ISP2, FIG. 1**) using the determined resources (**BGP-32, BGP-41, FIG. 1**).
4. Claim 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narayanan (U.S Patent No. 7,346,771 B2) in view of Xu et al (U.S Publication No. 2004/0085912).

Regarding claim 2, Narayanan teaches the telecommunications system of Claim 1. However, Narayanan fails to explicitly teach the system further comprising means for advertising the availability of the plurality of resources of said first network and the availability of the plurality of resources of said second network between said first network and said second network. Xu et al disclose an autonomous system topology based auxiliary network for a peer-to-peer overlay network. According to the teaching, the network supports expressway connections that between expressway nodes (**paragraph 0010**). When a node joins an expressway, it may advertise its position relative to the grid falls into. As a result, the amount of routing information may be minimized by reducing the size of the routing table (**paragraph 0042, lines 5-10**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of

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the invention to modify the teaching of Narayanan to enable the advertisement of available network resources from both networks as taught by Xu et al. One is motivated as such to propagate routing information when nodes join or leave or when network conditions change, to resolve routing destinations, and to forward information packets for multicasting for better IP routing performance (**paragraph 0024, lines 7-11**).

Regarding claim 12, Narayanan teaches the method of Claim 11. Narayanan, however, fails to explicitly teach the method further comprising: advertising the availability of the resources of the at least two service providers between the at least two service providers. Xu et al disclose an autonomous system topology based auxiliary network for a peer-to-peer overlay network. According to the teaching, the network supports expressway connections that between expressway nodes (**paragraph 0010**). When a node joins an expressway, it may advertise its position relative to the grid falls into. As a result, the amount of routing information may be minimized by reducing the size of the routing table (**paragraph 0042, lines 5-10**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to enable the advertisement of available network resources from both service providers as taught by Xu et al. One is motivated as such to propagate routing information when nodes join or leave or when network conditions change, to resolve routing destinations, and to forward information packets for multicasting for better IP routing performance (**paragraph 0024, lines 7-11**).

5. Claim 3-10 and 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narayanan (U.S Patent No. 7,346,771 B2) in view Ramstrom et al. (US Patent No. 5,960,004).

Regarding claim 3, Narayanan teaches the telecommunications system of Claim 1. Narayanan, however, fails to explicitly further comprising: a unified and integrated switch connected to said first network and said second network, said unified and integrated switch having common resources, a first portion of the common resources being dedicated to the first service provider and being capable of being configured by the first service provider, a second portion of the common resources being dedicated to the second service provider and being capable of being configured by the second service provider. Ramstrom et al teach a switch component **52** in **FIG. 6** that connects a plurality of network nodes **53**, **54**, **55**, and **56**. According to the teaching, the switch **52** consists of application modules **65**, **66**, and **67** to handle the functions of the networks connecting to it. The switch further includes common resources **69** being dedicated to each network node (**FIG. 6, column 8, lines 30-52**). Additionally, Ramstrom et al show the switch can support different services for the many network nodes as long as the required software is added to the application modules (**column 2, lines 14-21**). Since the common resources are accessible by network modules, it is evident that the sources can be configured according to the service a particular network node is compatible with. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to include a switch for connecting the networks and for configuring the shared resources as taught by Ramstroms et al. One is

motivated as such to allow multiple specific telecommunication applications to be performed with optimum functionality within the same switch device (**column 3, lines 10-15**).

Regarding claim 4, Narayanan teaches the telecommunications system of Claim 3. However, Narayanan fails to explicitly teach said unified and integrated switch includes a first logical communications node associated with the first service provider and capable of being dynamically configured in a customized manner by the first service provider and a second logical communications node associated with the second service provider and capable of being dynamically configured in a customized manner by the second service provider. Ramstrom et al illustrates in **FIG. 6** a software system of the network consisting of a single exchange **51** having a plurality of separate logical nodes and functionality of those nodes and interconnections between them is incorporated into single exchange **52** containing the software system (**column 8, lines 11-58**). It was stated in the preceding claim 3 that part **52** is a switch consisting of different modules supporting a variety of services according to the network nodes. Since single exchange **53** is functionally dependent on the switch device **52** for service, it is evident that the logical nodes are a part of the switching entity. It is also noted that a switch can render different services to their respective subscribers by having the switch programmed with the functionality required for each type of telecommunication service to be rendered (**column 2, lines 6-13**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to associate a first logical node to a first service provider and having the service provider configuring

the node to offer services compatible to its client network and to associate a second logical node to a second service provider and having the service provider configuring the node to offer services compatible to its client network. One is motivated as such to perform the specific functional actions required to implement assigned service elements **(column 3, lines 64-67)**.

Regarding claim 5, Narayanan teaches the telecommunications system of Claim 3. Narayanan, however, fails to explicitly teach said unified and integrated switch is within said first network, the first service provider being a wholesale service provider, the second service provider being a retail service provider. Ramstrom et al disclose in **FIG. 5** an illustrative diagram of multiple networks, or exchanges interconnected with one another in a communication network. It is disclosed that a local exchange **31** serves its local subscribers, or end users, and connected via trunk lines to another **33**, which is in turn connected to the international gateway exchange **34**. The international exchange **38**, for example, consists national exchange **40** which includes a plurality of subscribers and are connected by means of trunk lines **41** **(column 7, lines 55-64)**. Since the marketplace reflects the reality that supporting services between local subscribers between different geographical locations is commonplace, it would have been obvious to one with ordinary skill in the art of telecommunication to recognize the first network with the switch as the international exchange **38** as the wholesale service provider that provides service to the second network, a retail service provider **40** at a national level, which in turn provides services to its local subscribers as shown in Ramstrom et al, in

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order to gain the commonly understood benefits of such adaptations, such as reduced expense costs, simplified operation, and increased optimum performance and reliability.

Regarding claim 6, Narayanan teaches a telecommunications system of Claim 1. However, Narayanan fails to explicitly teach a means for calculating cost information for use of the first resources and the second resources for the inter-provider IP services. Ramstrom et al disclose in **FIG. 33** a block diagram of service application modules **121-126** with a number of access modules **139-144** for billing transactions. According to the teaching, service application modules function to provide services such as digit analysis, routing, and unique communication services which are specifically configured for the telecommunication services they are designed. Each of the access application modules **139-144** provides includes functionality such as protocol analysis, hardware maintenance, and line maintenance. In addition, the transaction manager **146** provides interfaces between different application modules and enables communication between them. The charging manager **147** provides services to the application modules connected with the charging of calls in a manner related to common charging elements to each of the application modules. Thus the transaction manager **146** and charging manager **147** are the means for calculating the cost information of the inter-provider IP service between two network resources (**FIG. 33, column 38, lines 22-63**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to include means for calculating cost information such as a transaction manager and charging manager application modules as taught by Ramstrom et al. One is motivated as such to introduce new technologies and upgrades

constantly to the already existing telecommunication network by modifying the previously designed application modules **(column 37, lines 15-20)**.

Regarding claim 7, Narayanan teaches a telecommunications system of Claim 6. However, Narayanan fails to explicitly teach the system further comprising means for creating an electronic contract between the first service provider and the second service provider using the cost information. Ramstrom et al disclose in the teaching that for each chargeable event or transaction occurring between network resources, an account record is obtained within the application module by charging account record subsystem **171**. The account reference **172** can then be used by this and other application modules to store data related to the charging of a particular call or event. If required, meter pulses can be generated in real time or calculated at the end of the call based upon the charging information received from the application modules **122-124**. This can be used for output to a subscriber's charging account record as required **(FIG. 38, column 41, lines 45-56)**. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to incorporate the means to generate an electronic contract between service providers using the cost information as taught by Ramstrom et al. One is motivated as such to provide necessary servicing functions to integrate charging functionality to existing application module via existing interfaces with new application modules via new interfaces **(column 41, lines 35-39)**.

Regarding claim 8, Narayanan teaches the telecommunications system of Claim 6. However, Narayanan fails to explicitly teach said means for calculating comprises: a

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software engine configured to receive the request for the inter-provider IP service, calculate pricing scenarios using the request, obtain real-time resource information, calculate real-time prices for each of the pricing scenarios using the real-time resource information and customize the cost information based on the first service provider, the second service provider, the request and the real-time prices. Ramstrom et al disclose a method for calculating cost information by configuring software in the application service modules such as transaction manager and charging manager to generate a record of the cost to the subscriber's account **(column 38, lines 22-63, column 41, lines 45-56)**. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to include service application modules such as a transaction manager and a charging manager to serve as the means for calculating real time price scenarios as taught by Ramstrom et al based on service providers, requests, and real time prices. One is motivated as such to introduce new technologies and upgrades constantly to the already existing telecommunication network by modifying the previously designed application modules **(column 37, lines 15-20)**.

Regarding claim 9, Narayanan teaches the telecommunications system of Claim 8, further comprising:

- a database **(116, 118, FIG. 2)** for storing the real-time resource information **(column 5, lines 6-12)**.

Regarding claim 10, Narayanan teaches the telecommunications system of Claim 9, wherein said means for provisioning includes an operational support system **(i.e.,**

processor 102, FIG. 2) connected to said software engine (**i.e. routing software 114, FIG. 2)** and said database (**116, 118, FIG. 2)**, said operational support system being further configured to manage the inter-provider IP service in real-time (**column 4, lines 62-67**).

Regarding claim 13, Narayanan teaches the method of Claim 11. Narayanan, however, fails to explicitly teach the method further comprising:

- providing a unified and integrated switch for the at least two service providers, the unified and integrated switch having common resources;
- configuring a first portion of the common resources dedicated to a first service provider of the at least two service providers by the first service provider, and
- configuring a second portion of the common resources being dedicated to a second service provider of the at least two service providers by the second service provider.

Ramstrom et al teach a switch component **52** in **FIG. 6** that connects a plurality of network nodes **53, 54, 55, and 56**. According to the teaching, the switch **52** consists of application modules **65, 66, and 67** to handle the functions of the networks connecting to it. The switch further includes common resources **69** being dedicated to each network node (**FIG. 6, column 8, lines 30-52**). Additionally, Ramstrom et al show the switch can support different services for the many network nodes as long as the required software is added to the application modules (**column 2, lines 14-21**). Since the common resources are accessible by network modules, it is evident that the sources can be configured according to the service a particular network node is compatible with.

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to include a switch for connecting the networks and for configuring the shared resources as taught by Ramstroms et al. One is motivated as such to allow multiple specific telecommunication applications to be performed with optimum functionality within the same switch device (**column 3, lines 10-15**).

Regarding claim 14, Narayanan teaches the method of Claim 3. However, Narayanan fails to explicitly teach the method further comprising:

- dynamically configuring in a customized manner a first logical communications node by the first service provider; and
- dynamically configuring in a customized manner a second logical communication node by the second service provider.

Ramstrom et al illustrates in **FIG. 6** a software system of the network consisting of a single exchange **51** having a plurality of separate logical nodes and functionality of those nodes and interconnections between them is incorporated into single exchange **52** containing the software system (**column 8, lines 11-58**). It was stated in the preceding claim 3 that part **52** is a switch consisting of different modules supporting a variety of services according to the network nodes. Since single exchange **53** is functionally dependent on the switch device **52** for service, it is evident that the logical nodes are a part of the switching entity. It is also noted that a switch can render different services to their respective subscribers by having the switch programmed with the functionality required for each type of telecommunication service to be rendered

(column 2, lines 6-13). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to associate a first logical node to a first service provider and having the service provider configuring the node to offer services compatible to its client network and to associate a second logical node to a second service provider and having the service provider configuring the node to offer services compatible to its client network. One is motivated as such to perform the specific functional actions required to implement assigned service elements **(column 3, lines 64-67)**.

Regarding claim 15, Narayanan teaches the method of Claim 13. Narayanan, however, fails to explicitly teach the first service provider being a wholesale service provider and the second service provider being a retail service provider. Ramstrom et al disclose in **FIG. 5** an illustrative diagram of multiple networks, or exchanges interconnected with one another in a communication network. It is disclosed that a local exchange **31** serves its local subscribers, or end users, and connected via trunk lines to another **33**, which is in turn connected to the international gateway exchange **34**. The international exchange **38**, for example, consists national exchange **40** which includes a plurality of subscribers and are connected by means of trunk lines **41** **(column 7, lines 55-64)**. Since the marketplace reflects the reality that supporting services between local subscribers between different geographical locations is commonplace, it would have been obvious to one with ordinary skill in the art of telecommunication to recognize the first network with the switch as the international exchange **38** as the wholesale service provider that provides service to the second network, a retail service provider **40** at a

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national level, which in turn provides services to its local subscribers as shown in Ramstrom et al, in order to gain the commonly understood benefits of such adaptations, such as reduced expense costs, simplified operation, and increased optimum performance and reliability.

Regarding claim 16, Narayanan teaches the method of Claim 11. However, Narayanan fails to explicitly teach the method further comprises calculating cost information for use of the resources of the at least two service providers for the internet-provider IP service. Ramstrom et al disclose in **FIG. 33** a block diagram of service application modules **121-126** with a number of access modules **139-144** for billing transactions. According to the teaching, service application modules function to provide services such as digit analysis, routing, and unique communication services which are specifically configured for the telecommunication services they are designed. Each of the access application modules **139-144** provides includes functionality such as protocol analysis, hardware maintenance, and line maintenance. In addition, the transaction manager **146** provides interfaces between different application modules and enables communication between them. The charging manager **147** provides services to the application modules connected with the charging of calls in a manner related to common charging elements to each of the application modules. Thus the transaction manager **146** and charging manager **147** are the means for calculating the cost information of the inter-provider IP service between two network resources (**FIG. 33, column 38, lines 22-63**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to include

means for calculating cost information such as a transaction manager and charging manager application modules as taught by Ramstrom et al. One is motivated as such to introduce new technologies and upgrades constantly to the already existing telecommunication network by modifying the previously designed application modules **(column 37, lines 15-20)**.

Regarding claim 17, Narayanan teaches the method of Claim 16. However, Narayanan fails to explicitly teach the method further comprising creating an electronic contract between the at least two service providers using the cost information. Ramstrom et al disclose in the teaching that for each chargeable event or transaction occurring between network resources, an account record is obtained within the application module by charging account record subsystem **171**. The account reference **172** can then be used by this and other application modules to store data related to the charging of a particular call or event. If required, meter pulses can be generated in real time or calculated at the end of the call based upon the charging information received from the application modules **122-124**. This can be used for output to a subscriber's charging account record as required **(FIG. 38, column 41, lines 45-56)**. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to incorporate the means to generate an electronic contract between service providers using the cost information as taught by Ramstrom et al. One is motivated as such to provide necessary servicing functions to integrate charging functionality to existing application module via existing interfaces with new application modules via new interfaces **(column 41, lines 35-39)**.

Regarding claim 18, Narayanan teaches the method of Claim 16. However, Narayanan fails to explicitly teach said calculating comprising:

- calculating pricing scenarios using the request;
- obtaining real-time resource information;
- calculating real-time prices for each of the pricing scenarios using the real-time resource information; and
- customizing the cost information based on the at least two service providers the request and the real-time prices.

Ramstrom et al disclose a method for calculating cost information by configuring software in the application service modules such as transaction manager and charging manager to generate a record of the cost to the subscriber's account (**column 38, lines 22-63, column 41, lines 45-56**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to include service application modules such as a transaction manager and a charging manager to serve as the means for calculating real time price scenarios as taught by Ramstrom et al based on service providers, requests, and real time prices. One is motivated as such to introduce new technologies and upgrades constantly to the already existing telecommunication network by modifying the previously designed application modules (**column 37, lines 15-20**).

Regarding claim 19, Narayanan teaches the method of Claim 18, further comprising:

- collecting the real-time resource information (**column 5, 9-12**).

- storing the real-time resource information (**column 5, lines 6-8**).

Regarding claim 20, Narayanan teaches the telecommunications system of Claim 19, wherein said provisioning further comprising:

- managing the inter-provider IP service in real-time (**column 4, lines 62-67**).

Regarding claim 21, Narayanan teaches the method of claim 11. However, Narayanan fails to explicitly teach said provisioning further comprising:

- incorporating network infrastructure and resources in said provisioning;
- incorporating business relations among the at least two services providers dynamically and in real-time in said provisioning, wherein the business relations include at least contracts and prices; and
- incorporating business objectives in said provisioning, wherein the business objectives include at least one of financial ratios, service volume and profitability

Ramstrom et al disclose the business relations between two service providers are outlined in dynamic, real-time transactions where contracts and prices are created as a result of the business relation (**column 41, lines 45-56**). Business objectives are also a part of the teaching since the telecommunication network is capable of supporting a variety of services such as ISDN, PSTN, private network and so forth (**FIG. 6**). Therefore, service volume for the different network nodes dictates one of the important aspects in business objectives. Furthermore, Ramstrom et al explain the goal of expanding functionality in a telecommunication system by upgrading hardware components and adding new software capabilities is often undesirable since

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telecommunication companies are interested in minimizing cost while maintaining the quality of service offered to their subscribers (**column 2, 36-42**). Ramstrom et al propose a method to reduce expenses by implementing application modules that can be programmed by software to support a variety of services as required by the different network (**column 2, lines 14-21**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify the teaching of Narayanan to include business relations and business objectives in the provision of network services. One is motivated as such to provide necessary servicing functions to integrate functionality to existing application module via existing interfaces with new application modules via new interfaces (**column 41, lines 35-39**) and to enable efficacious growth of future communication services (**column 42, lines 27-31**).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this Office Action should be **faxed** to (571) 273-8300 or **mailed** to:

Commissioner for Patents,
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-Delivered responses should be brought to
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khuong Tran, whose telephone number is (571) 270-3522. The examiner can normally be reached Mon-Fri from 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag G. Shah, can be reached at (571) 272-3144. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on

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access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/K. T./

May 16, 2008

/Chirag G Shah/

Supervisory Patent Examiner, Art Unit 2619